

What is claimed is:

1. An apparatus for visually detecting wear to an insert bowl, bushing, or spider, comprising:

5 a bowl having a central bore defined by an inner surface, said inner surface including an upper tapered section for engaging slips supporting a work string and a lower section;

a wear indicator means formed in the inner surface of said bowl, said wear indicator means providing a visual indicator of wear to the inner surface of said bowl.

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2. The apparatus according to claim 1, wherein said wear indicator means comprises a groove.

3. The apparatus according to claim 2, wherein said groove  
15 is a substantially horizontal groove.

4. The apparatus according to claim 3, wherein said substantially horizontal groove extends around a circumference of the inner surface of said bowl.

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5. An apparatus for visually detecting wear to an insert bowl, bushing, or spider, comprising:

a bowl having a central bore defined by an inner surface, said inner surface including an upper tapered section for engaging slips supporting a work string and a lower section;

a wear indicator means formed in the lower section of the inner surface of said bowl, said wear indicator means providing a visual indicator of wear to the inner surface of said bowl.

6. The apparatus according to claim 5, wherein said wear indicator means comprises a groove.

7. The apparatus according to claim 6, wherein said groove is a substantially horizontal groove.

8. The apparatus according to claim 7, wherein said substantially horizontal groove extends around a circumference of the inner surface of said bowl.

9. An apparatus for visually detecting wear to an insert bowl, bushing, or spider, comprising:

a bowl having a central bore defined by an inner surface, said inner surface including an upper tapered section

5 for engaging slips supporting a work string and a lower section;

a groove formed in the inner surface of said bowl, said groove having an initial non-wear depth of at least 1/4 inch, said groove providing a visual indicator of wear to the inner surface of said bowl.

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10. The apparatus according to claim 9, wherein said groove is formed in the lower section of the inner surface of said bowl.

11. The apparatus according to claim 10, wherein said  
15 groove is a substantially horizontal groove.

12. The apparatus according to claim 11, wherein said substantially horizontal groove extends around a circumference of the inner surface of said bowl.

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13. An apparatus for visually detecting wear to an insert bowl, bushing, or spider, comprising:

a bowl having a central bore defined by an inner surface, said inner surface including an upper tapered section for engaging slips supporting a work string and a lower section;

a first substantially horizontal groove formed in the inner surface of said bowl;

a second substantially horizontal groove formed in the inner surface of said bowl;

said first and second substantially horizontal grooves providing a visual indicator of wear to the inner surface of said bowl.

14. The apparatus according to claim 13, wherein said first substantially horizontal groove has an initial non-wear depth less than an initial non-wear depth of said second substantially horizontal groove.

15. The apparatus according to claim 13, wherein said first substantially horizontal groove is formed in the upper tapered section of the inner surface of said bowl and said second substantially horizontal groove is formed in the lower section of the inner surface of said bowl.

16. The apparatus according to claim 13, wherein said first and second substantially horizontal grooves are each formed in the lower section of the inner surface of said bowl.

5 17. A method of visually detecting wear to an insert bowl, bushing, or spider, comprising the steps of:

a) providing a bowl having a central bore defined by an inner surface, said inner surface including an upper tapered section for engaging slips supporting a work string, a lower  
10 section, and a wear indicator means, said wear indicator means being formed in the inner surface of said bowl and providing a visual indicator of wear to the inner surface of said bowl; and

b) visually inspecting said wear indicator means for existence of wear to the inner surface of said bowl.

15 18. The method according to claim 17, wherein an inability to visually detect at least a portion of said wear indicator means signifies wear to the inner surface of said bowl that indicates that replacement of said bowl is necessary.

20 19. The method according to claim 17, wherein said wear indicator means is formed in the lower section of the inner surface of said bowl.

20. The method according to claim 17, wherein said wear indicator means comprises a groove.

21. The method according to claim 20, wherein said groove  
5 is a substantially horizontal groove.

22. The method according to claim 21, wherein said substantially horizontal groove extends around a circumference of the inner surface of said bowl.

10 23. The method according to claim 20, wherein said groove is machined in the inner surface of said bowl.

24. The method according to claim 23, wherein said groove  
15 is machined to an initial non-wear depth of at least 1/4 inch.

25. A method of visually detecting wear to an insert bowl, bushing, or spider, comprising the steps of:

20 a) providing a bowl having a central bore defined by an inner surface, said inner surface including an upper tapered section for engaging slips supporting a work string, a lower section, a first substantially horizontal groove, and a second substantially horizontal groove, said first and second horizontal

grooves each being formed in the inner surface of said bowl and providing a visual indicator of wear to the inner surface of said bowl; and

b) visually inspecting said first and second  
5 substantially horizontal grooves for existence of wear to the inner surface of said bowl.

26. The method according to claim 25, wherein said first  
substantially horizontal groove has an initial non-wear depth  
10 less than an initial non-wear depth of said second substantially horizontal groove.

27. The method according to claim 26, wherein an inability  
to visually detect at least a portion of said first substantially  
15 horizontal groove signifies wear to the inner surface of said bowl that does not indicate that replacement of said bowl is necessary and an inability to detect at least a portion of said second substantially horizontal groove signifies wear to the inner surface of said bowl that indicates that replacement of  
20 said bowl is necessary.

28. The method according to claim 25, wherein said first substantially horizontal groove is formed in the upper tapered section of the inner surface of said bowl and said second substantially horizontal groove is formed in the lower section of the inner surface of said bowl.

29. The method according to claim 25, wherein said first and second substantially horizontal grooves are each formed in the lower section of the inner surface of said bowl.

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